

WHAT IS CLAIMED IS:

1. A color cathode-ray tube comprising a panel having a fluorescent plane formed on the inner surface thereof, and a shadow mask arranged at the inner side
5 of the panel, having a predetermined distance therefrom,

wherein said shadow mask has an effective area in which electron beam passage holes are formed and a non-effective area surrounding said effective area, and at least one half etching line is formed at the non-effective area of the shadow mask.

10 2. The color cathode-ray tube as claimed in claim 1, wherein the half etching line is formed on the surface of the shadow mask, opposite to the fluorescent plane.

15 3. The color cathode-ray tube as claimed in claim 1, wherein the half etching line is formed to extend toward at least one of the shorter side, longer side and corner of the shadow mask.

4. The color cathode-ray tube as claimed in claim 1 or 3, wherein the non-effective area is bent to have the a skirt attached to a frame, and the half etching
20 line is placed between the bent portion and the portion attached to the frame at the skirt.

5. The color cathode-ray tube as claimed in claim 1 or 3, wherein the half etching line is formed on each of both surfaces at the non-effective area of the shadow mask.

6. The color cathode-ray tube as claimed in claim 5, wherein the half etching lines are alternately formed on both surfaces thereof.

5 7. The color cathode-ray tube as claimed in claim 1, wherein the half etching line has a rectangular shape surrounding the effective area.

8. The color cathode-ray tube as claimed in claim 1, wherein the panel is flat type whose outer surface is substantially flat and whose inner surface has a
10 predetermined curvature.

9. The color cathode-ray tube as claimed in claim 1 or 3, wherein the distance between the effective area and the half etching lines corresponds to 100-200 μ m.

15 10. The color cathode-ray tube as claimed in claim 1 or 3, wherein the width of the half etching line is 50-100 μ m.

11. The color cathode-ray tube as claimed in claim 1 or 3, wherein there are at least two half etch lines, the distance between the two half etching lines
20 corresponding from the thickness of the shadow mask to twice the thickness thereof.

12. The color cathode-ray tube as claimed in claim 11, wherein the distance between the half etching lines is 100-150 μ m.

13. The color cathode-ray tube as claimed in claim 1 or 3, wherein the etched depth of the half etching line corresponds to 10-35% of the thickness of the shadow mask.

14. The color cathode-ray tube as claimed in claim 13, wherein the etched depth of the half etching line corresponds to 15-45 μ m.

15. The color cathode-ray tube as claimed in claim 3 or 7, wherein the radius of curvature of the corner of the half etching line is 0.8-3mm.

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16. The color cathode-ray tube as claimed in claim 1, wherein the length (ℓ) of the half etching line surrounding the corner of the shadow mask is above 60% of half the longer side ($\ell 1$) or half the shorter side ($\ell 2$) of the effective area of the shadow mask.

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